Claims

1. A polymerisate of the formula:

Wherein

A and B represent polymer chain terminal groups;

 $R_{_{1}},\,R_{_{1}}$ ' and $R_{_{1}}$ " independently of one another represent hydrogen or $C_{_{1}}\text{-}C_{_{4}}alkyl;$

R₂ represents hydrogen or an ester group of higher polarity;

R₃ represents an ester group of lower polarity;

Y represents the direct bond or a bivalent group;

Z represents the functionally effective group of an agent having light protecting properties;

The numerals I, II, III represent individual polymer blocks in any sequential order;

The indices p, q and r represent the number of polymer blocks I, II and III in the polymerisate, wherein one of the indices p and q independently of one another represents zero, one or a numeral greater than one and the other one represents one or a numeral greater than one; and r represents one or a numeral greater than one; and wherein

The indices x, y and z define the number of monomer units present in the individual polymer blocks I, II and III.

2. A polymerisate according to claim 1 of the formula:

$$A_{1} = \begin{bmatrix} \begin{pmatrix} C & R_{1} & I &$$

Wherein

A, represents the fragment of a polymerisation initiator;

B* represents a polymerisable, ethylenically unsaturated terminal group; and

 R_1 , R_1 , R_3 , R_3 , R_3 , R_3 , R_4 , R_5 , the numerals I, II and III and the indices p, q, r, x, y and z are as defined in claim 1.

3. A comb polymer according to claim 1 of the formula:

Wherein

A, represents the fragment of a polymerisation initiator;

 R_1 , R_3 , R_4 , R_3 , R_4 , R_5 , R_5 , R_6 , R_7 , R_8 ,

B_z represents a polymer group of the partial formula:

Wherein

A, represents a polymer chain terminal group;

 R_1 , R_1 , R_1 , R_2 , R_3 Y and Z are as defined in claim 1;

The numerals I, II and III represent individual polymer blocks in any sequential order;

The indices p, q and r represent the number of polymer blocks I, II and III in the polymerisate, wherein

One of the indices p, q and r independently of one another represents one or a numeral greater than one;

And the other ones represent zero, one or a numeral greater than one; and

The indices x, y and z define the number of monomer units present in the individual polymer blocks I, II and III.

4. A polymerisate (I) according to claim 1, wherein

A and B represent polymer chain terminal groups;

R₁, R₁ and R₁ independently of one another represent hydrogen or methyl;

R₂ represents an ester group selected from the group consisting of mono- or dihydroxy-C₂-C₄-alkyl, amino-C₂-C₁₈alkyl, ammonio-C₂-C₁₈alkyl, C₁-C₄alkylamino-C₂-C₁₈alkyl, tri-C₁-C₄alkylammonio-C₂-C₁₈alkyl, hydroxy-C₂-C₄alkylamino-C₂-C₁₈alkyl, C₁-C₄alkyl-(hydroxy-C₂-C₄alkyl)amino-C₂-C₁₈alkyl, di-C₁-C₄alkyl-(hydroxy-C₂-C₄alkyl)ammonio-C₂-C₁₈alkyl, and C₁-C₄alkyl substituted by carboxy, sulpho or phosphono.

R, represents C,-C,alkyl, e.g. methyl, ethyl, isopropyl, n-butyl or 2-ethylhexyl;

Y represents the direct bond or a bivalent group;

Z represents the functionally effective group of an agent having light protecting properties;

The indices p and x represent zero;

And the numerals II and III and the indices q, r, y and z are as defined in claim 1.

5. A polymerisate (I) according to claim 1, wherein

A and B represent polymer chain terminal groups;

R,, R,' and R," independently of one another represent hydrogen or methyl;

R₂ represents an ester group selected from the group consisting of C₂-C₄alkyl substituted by amino, ammonio, C₁-C₄alkylamino, di-C₁-C₄alkylamino, tri-C₁-C₄alkylammonio, or di-C₁-C₂alkyl-2-hydroxyethylammonio;

R, represents C,-C,alkyl;

Y represents the direct bond or a bivalent group;

Z represents the functionally effective group of an agent having light protecting properties;

The indices p and x represent zero;

The indices q and r represent one;

The indices y and z represent numerals greater than one;

And the numerals II and III are as defined in claim 1.

- 6. A polymerisate (I) according to claim 1, wherein the functionally effective group Z of an agent having light protecting properties is a structural moiety derived from light protecting agents selected from the group consisting of UV-light absorbers, radical scavengers, singlet oxygen quenchers, triplett quenchers, photo-stabilisers and superoxide-anion-quenchers.
- A polymerisate (i) according to claim 1, wherein the UV-light absorber molety Z is a substituent derived from UV-absorbers selected from the group consisting of 2-(2-hydroxy-phenyl)-1,3,5-triazines (HPT), 2-(2'-hydroxyphenyl)benzotriazoles (HBZ), 2-hydroxybenzophenones (HBP) and oxanilides (OA).
- 8. A compound of the formula:

Wherein

X represents carboxy, sulpho or phosphono; and

 R_x , R_c and R_d independently of one another represent hydrogen, halogen, C_1 - C_4 alkyl or C_1 - C_4 alkoxy.

9. A compound of the formula:

Wherein

X represents a bivalent functional group selected from the group consisting of -C(=0)-NH-, $-CH_2-O-$, -O-, -NH- and $-N(C_1-C_4alkyl)-$; and

Y represents C_1 - C_4 alkyl, hydroxy- C_2 - C_4 alkyl, amino- C_2 - C_4 alkyl, acryloyl or methacryloyl. 10. A composition comprising

- a) A composition of matter susceptible to degradation induced by light, heat or oxidation; and
- b) The polymerisate (I), wherein A, B, R₁, R₁', R₁'', R₂, R₃, Y, Z, the numerals I, II and III and the indices p, q, r, x, y and z are as defined in claim 1.

- 11. A pigment composition comprising
 - a') 0.1–99.9% by weight dispersible organic or inorganic pigment particles; and
 - b') 0.1–99.9% by weight of a polymerisate (I), wherein A, B, R_1 , R_2 , R_3 , R_4 , R_3 , Y, Z, the numerals I, II and III and the indices p, q, r, x, y and z are as defined in claim 1.
- 12. A composition according to claim 11, which additionally contains additives selected from the group consisting of surfactants, light stabilisers, UV-absorbers, anti-foaming agents, dispersion stabilisers, dyes, plasticisers, thixotropic agents, drying catalysts, anti-skinning agents and levelling agents.
- 13. A pigment dispersion comprising
 - a") Dispersed organic or inorganic pigment particles; and
 - b") A dispersing agent consisting of at least one polymerisate (I), wherein A, B, R, R, R, R, ",
 - R_{z} , R_{y} , Y, Z, the numerals I, II and III and the indices p, q, r, x, y and z are as defined in claim 1;
 - And a carrier liquid comprising water, organic solvents and mixtures thereof.
- 14. Use of the pigment dispersion according to claim 13 for preparing ink compositions or colour filters.
- 15. Use of the pigment dispersion according to claim 13 for preparing coating compositions, prints, images, inks, lacquers, pigmented plastics, adhesives, casting resins, filled composites, glass fibre reinforced composites, laminates, cement based construction materials like plaster and tile adhesives.